

CLAIMS

1. A communications terminal for use in a code division multiple access system, comprising a plurality of correlating means, each for correlating a part of a spreading code sequence relating to a signal to be acquired, and zero padded Fast Fourier Transform (FFT) means for operating on the output of the correlating means.

2. A communications terminal according to claim 1, wherein the correlating means each comprise a complex matched filter correlator.

3. A communications terminal according to claim 2, wherein each correlator is of the same chip length, the product of the chip length of each correlator and the number of correlators defining the length of the spreading code.

15 4. A communications terminal according to claim 3, wherein the chip length of each correlator is 25 or less.

5. A communications terminal according to any preceding claim, including a hard limiter at the input to the correlating means.

20 6. A communications terminal according to any preceding claim, wherein the FFT means is a complex zero padded FFT processor having at least twice as many points as the number of correlating means.

7. A communications terminal according to claim 6, wherein the FFT processor has four times as many points as the number of correlating means.

8. A communications terminal according to claim 6, wherein the FFT processor has eight times as many points as the number of correlating means.

9. A communications terminal according to any preceding claim, wherein the output of the FFT means is supplied to a maximum signal selector for signal acquisition.

10. A method of operating a code division multiple access communications terminal so as to acquire a given signal, comprising correlating the spreading code sequence of the given signal in a plurality of partial correlation operations, and processing the partial correlation results using a zero padded Fast Fourier Transform (FFT).

10 11. A method according to claim 10, wherein, prior to
the correlation step, the signal is passed through a hard
limiter.

12. A method according to claim 10 or 11, wherein, after
the FFT step, the maximum signal present is selected to
15 acquire the given signal.